

Abstract

The preferred embodiment includes methods and apparatus for locating a member within an aperture. One preferred apparatus generally includes a housing containing at least one rotatably connected ring, and a plurality of tie members spaced evenly about the ring's perimeter. The tie members are connected to the rotating ring and the housing such that rotation of the ring pulls the tie members taut across the inside of the ring. Rotating the ring in the opposite direction returns the tie members to their initial orientation. When the tie members are taut they urge elements passing through an opening towards the center. When the apparatus is installed in a drilling rig floor, it results in a simpler and more effective pipe centering technology than currently exists allowing pipe strings to be centered in the slip bowl or power slips so that the slips are easily and securely installed about the pipe string.